



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,203	12/31/2003	James S. Petrek	03R-2	3389
7590	09/06/2005		EXAMINER	
Robert R. Meads c/o Rainin Instrument, LLC 7500 Edgewater Drive Oakland, CA 94621			GORDON, BRIAN R	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/751,203	PETREK ET AL.	
	Examiner	Art Unit	
	Brian R. Gordon	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 December 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-9 and 18-20 is/are rejected.
 7) Claim(s) 10-17 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 12-31-03 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 6-9, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Tervamaki et al. US 4,466,298.

Tervamaki et al. disclose a pipette which comprises a frame portion (1) shaped as a handle, a cylinder being formed inside the frame portion (1), as well as a piston (5) fitted into the cylinder by means of a seal ring (7), a piston rod (4) connected to the piston (3), as well as a press knob (5) with shaft (6) (volume adjusting means), fitted at the upper end of the frame portion (1). Around the shaft (6) of the press knob (5), a calibration sleeve (9) is fitted by means of a threaded joint (8) (second retainer defining lower limit), by means of which calibration sleeve (9) (nut) the lower limit of the movement of the piston (3) during pipetting can be determined. According to the invention, the calibration sleeve (9), as surrounded by the mantle (10) of the hollow

Art Unit: 1743

press knob (5) and by the upper part of the pipette frame (1), is placed at a distance both from the mantle (10) of the press knob (5) and from the inner face of the cover of the upper part of the pipette frame (1). Thereby the hollow press knob (5) and the pipette frame (1) form a cover protecting from conducted heat and allow a space of air around the adjustment and calibration sleeve (9) (abstract).

Specifically A sleeve 20 is fitted by means of a threaded joint 21 (first retainer), around the shaft 6 of the press knob. Inside the frame portion 1 of the pipette, there is an annular limiter flange 22, against whose lower face the sleeve 20 (nut) rests by means of its upper face. In this way, the sleeve 20 together with the annular flange 22 determines the upper position of the piston 3.

Above the adjustment thread 21 of the press knob shaft 6, on the press knob shaft 6 there is the calibration thread 8. The diameter and the pitch of the calibration thread 8 (second adjustable retainer mechanism) may be either the same as or different from those of the adjustment thread 21 (including smaller or larger and ranges, establishing fine and coarse volume setting means). By means of the calibration thread, a calibration sleeve 9 is fitted around the shaft 6 of the press knob 5, by means of which sleeve 9 the lower limit of the movement of the piston 3 during pipetting can be determined. As surrounded by the mantle 10 of the hollow press knob 5 and by the upper portion of the pipette frame 1, the calibration sleeve 9 is placed at a distance both from the mantle 10 of the press knob 5 and from the inner face of the cover of the upper part of the pipette frame 1. In such a case, the hollow press knob 5 and the pipette frame 1 constitute a protective cover against conducted heat and allow a sufficient air

space around the adjustment and calibration sleeve 9. For the secondary movement of the pipette, an annular flange 11 is fitted in the annular space between the calibration sleeve 9 and the pipette frame 1, around the sleeve 9, which annular flange 11 is pressed downwards against a limiter flange 14 placed at the lower portion of the calibration sleeve 9.

4. Claims 1-3, 6-9, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Telimaa et al. US 2002/0041833.

Telimaa et al. disclose adjustable piston pipettes comprise an upper and lower retainer of the piston movement, the location of at least one of said retainers can be changed. Generally the adjustment is realized by means of a screw-and-nut joint, for instance so that the retainer is provided with a screw, around which there is arranged a nut that does not rotate in relation to the housing but moves along guides along with the piston. The pitch of the screw threading defines the pace of the adjustment. Typically there are used 8-20 revolutions in the adjustment, depending on the size of the volume range.

The pipette comprises two retainers of the piston motion, based on adjusted threadings. One of the retainers has a range adjusting thread with a large pitch for rapidly choosing the desired volume range. The other retainer has a fine adjustment thread with a smaller pitch for accurately setting the desired volume (coarse and fine volume setting means).

When adjusting the suction volume, the shaft 3 is first turned by the knob 4 until the desired range is achieved. This adjustment sets the upper limit for the suction

Art Unit: 1743

motion of the piston 2. Owing to the high pitch of the threading 5, this operation is always carried out swiftly. The fine adjustment is then performed by turning the fine adjustment sleeve 12 by its top end. This operation sets the lower limit for the suction motion of the piston (page 3, first full paragraph).

5. Claims 1-9, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Rainin et al. US 6,428,750.

Rainin et al. disclose a volume adjustable manual pipette having a hand-holdable housing supporting (i) an electronic digital display and associated position sensing and control circuitry, (ii) a plunger unit and (iii) a quick set volume adjustment mechanism for simultaneously controlling the volume setting of the pipette and the electronic display, the quick set volume adjustment mechanism comprising a pipette volume setting member for limiting upward movement of the plunger unit within the housing to define the volume setting for the pipette and the volume setting member being supported for axial movement on the plunger unit and releasably secured relative to the housing by a pipette user operable locking mechanism. When released from the housing, the volume setting member is axially moveable on and with the plunger unit to quickly set the volume for the pipette. When secured to the housing, the plunger unit is axially moveable relative to the volume setting unit to aspirate and dispense the selected volume of liquid into and from a pipette tip extending from a lower end of the housing. The volume setting of the pipette is monitored by the sensing and control circuitry to provide a real time display of the volume setting of the pipette (abstract).

Basically, the quick set volume adjustment mechanism 22 comprises a volume

setting member 32 for limiting upward axial movement of the plunger unit 20 in the housing 12 to define the volume setting for the pipette 10. The volume setting member 32 is supported for axial movement on the plunger unit 20 and is releasably secured to the housing 12 by a pipette user operable locking mechanism 34. When released from the housing, the volume setting member 32 is moveable axially on and with the plunger unit 20 to rapidly set the volume of the pipette 10. When the volume setting member 32 is secured by the locking mechanism 34 to the housing 12, the plunger unit 20 is moveable axially relative to the volume setting member 32 to aspirate and dispense the selected volume of liquid into and from the pipette tip 30 secured to shaft 31 extending from the housing 12.

Vertical movement of the volume setting member 32 produces a like vertical movement of the plunger unit 20 within the housing 12 since the flange member 42 of the plunger unit 20 is continuously urged by the return spring 36 upward against the bottom surface of the sleeve comprising the volume setting member 32. Accordingly, the plunger unit 20 follows any vertical adjustment of the volume setting member 32 within the housing. Such vertical movement of the volume setting member 32 and the plunger unit 20 is monitored by the sensor circuitry 16 which generates an electrical signal processed within the control circuitry 18 and visually displayed as a digital volume setting for the pipette on the display 14. Such a display rapidly depicts any changes in the volume setting for the pipette 10 and is a real time monitor of the value of such volume settings (column 3, line 53 - column 5, line 3).

Allowable Subject Matter

Art Unit: 1743

6. Claims 10-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not teach or fairly suggest volume setting member comprises an axially extending screw having a relatively coarse thread; and the gear mechanism comprises a planetary gear mechanism including a planetary gear carrier on the screw comprising the volume setting member, a plurality of circumferentially spaced planetary gears on the carrier separately mating with an outer ring gear and an inner sun gear carried by the volume adjusting member mating with the plurality of planetary gears to produce a turning of the sun gear, planetary gears and volume setting member in response to a turning of the volume adjusting member to adjust the volume setting of the pipette.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oshikubo; Yuji; D'Autry; Eric M.; Gilson; Warren E.; Sabloewski; Horst; Scordato; Emil A. et al.; Withers; Stanley J. et al.; Marteau D'Autry; and Eric; Walker; Clarence L. disclose variable volume pipettes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



brg